



## DESCRIPTION

### ELECTRONIC DEVICE

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## BACKGROUND OF THE INVENTION

### 1. Field of the Invention

The present invention relates to an electronic device which can be carried to an arbitrary place and used mounted on a rack or put on a table in accordance with setting conditions different for each place.

### 2. Description of the Related Art

Conventionally, when a plurality of electronic devices are connected to one another through wiring or simultaneously used, those electronic devices are typically mounted on a rack (a structure for accommodating the devices such as a shelf, support, or the like) to reduce setting space or improve working efficiency. Further, it is also performed to install the most of complicated wiring among the electronic devices on the rear side of the rack which is not seen from the front side so as to improve the appearance and safety at the working site.

Hence, most of electronic devices, which are used not being moved but mounted on a rack at a fixed place for a long time like audio devices, have panels for performing operation and display provided on their front surfaces of the electronic device main bodies (hereafter referred simply to as "main bodies"), and input/output terminals provided on the rear surfaces of the main bodies so that a user can easily operate them.

Some of the electronic devices, however, are carried to arbitrary

places and used mounted on a rack (hereafter referred to as "rack-mount") or individually put on a table (hereafter referred to as "stand-alone") in accordance with setting conditions (the installation area, the kind and number of electronic devices in use, and so on) different for each place. For example,  
5 one of them is a mixer that is an audio electronic device for acoustics.

The mixer represents an electronic device for acoustic control in theaters, halls, outdoors, and so on, or for mixing and controlling a plurality of audio signals used for creating sound in recording and so on, and can mix audio signals inputted from a plurality of channels at an arbitrary level  
10 loudness (volume) ratio and output them. Typically, the mixer is also equipped with effect circuits such as equalizers, effectors, and so on for processing timbre (tone color) of audio signals, and input/output terminals. Note that various kinds of controls (knobs) for controlling the loudness or timbre are mounted on almost the entire surface of the panel provided on the  
15 upper surface of the main body.

The provision of the panel for operation and display on the upper surface of the main body brings the user to easily operate the electronic device when using it stand-alone.

However, when such an electronic device is rack-mounted, there has  
20 been a problem that when the electronic device is mounted with its panel facing upward similarly to that in stand-alone, a user is difficult to reach the back of the panel, resulting in reduced working efficiency.

Hence, it is conceivable that the main body is rotated  $90^\circ$  toward the front of the rack so that the panel is mounted on the rack to face the operator.  
25 However, when the shape of the main body is not a cube or rectangular solid, and especially when an electronic device is in an almost dustpan shape, as is a mixer, having a height dimension smaller than longitudinal and lateral

dimensions and the height dimension is gradually reduced from the rear side to the front side, there has been a problem that the device lacks in stability to easily fall down.

Therefore, it is conceivable that a special supporter is provided on a  
5 rack to support an electronic device. However, this requires complicated-shaped supporters different for each electronic device, leading to increased cost.

Alternatively, it is also conceivable to provide an attachment portion for rack mount on an electronic device. This arrangement, however, causes  
10 a problem that the attachment portion interferes with operation during use of the electronic device stand-alone.

It is also conceivable to make the attachment portion detachable to prevent it from interfering with operation during use in stand-alone. In this case, however, the plurality of kinds of supporters different for electronic  
15 devices need to be stored other than when the electronic device is rack-mounted, and there has been a problem that labor for management and storage space are required.

Further, there has been another problem that when the electronic device is carried to an arbitrary place and used rack-mounted or stand-alone  
20 as described above, the electronic device is easily broken during carriage or setting. Further, there has been a problem that when the main body is heavy such as a mixer, an electronic device is difficult to lift up in rack mounting.

## SUMMARY OF THE INVENTION

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The present invention is made to solve these problems, and its purpose is to realize a structure of an electronic device ready for both of stand-alone